

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A transformer comprising:
 - a toroid-shaped core comprising magnetic material;
 - at least one primary coil of insulated wire wound around the core, the primary coil electrically isolated from a transformer load;
 - at least one secondary coil of insulated wire wound around the core; and
 - a printed circuit board (PCB), wherein the PCB includes a plurality of vias and bonding pads, the vias in communication with the bonding pads, and wherein wire ends of the at least one primary and at least one secondary coils are attached to the vias, the toroid-shaped core and coils affixed to the PCB such that a center axis of the toroid is substantially perpendicular to the PCB.
2. (Original) The transformer of claim 1, wherein the at least one primary coil comprises a plurality of windings electrically connected in parallel to each other.
3. (Original) The transformer of claim 2, wherein first ends of the plurality of windings are attached to a first via and second ends of the plurality of wires are attached to a second via.
4. (Original) The transformer of claim 3, wherein an electrical resistance of the primary coil is about 15 milliohms.
5. (Original) The transformer of claim 4, wherein the at least one secondary coil has a different number of windings than the at least one primary coil.
6. (Original) The transformer of claim 5, wherein the at least one secondary coil is a plurality of coils, wherein at least two of the plurality of coils have a different number of turns.
7. (Original) The transformer of claim 6, wherein the at least one primary coil comprises wire

of 30 American wire gauge (AWG) and the at least one secondary wire comprises wire of 42 AWG.

8. (Original) The transformer of claim 6, wherein the transformer further includes a cover over the coils.

9. (Original) The transformer of claim 8, wherein the cover comprises an electrically conductive material.

10. (Original) The transformer of claim 9, wherein the cover is electrically connected so as to provide an electromagnetic shield to the transformer.

11. (Original) A method of forming a transformer comprising:

winding insulated wire around a magnetic core to form at least one secondary transformer coil;

winding insulated wire around the magnetic core to form at least one primary transformer coil, the primary coil electrically isolated from a transformer load;

attaching wire ends of the at least one primary coil to at least first and second vias of a printed circuit board (PCB), the vias being in communication with bonding pads on the PCB;

attaching wire ends of the at least one secondary coil to at least third and fourth vias of the PCB; and

attaching the wire ends of the primary and secondary coils flush to a surface of the vias on the PCB.

12. (Original) The method of claim 11, wherein attaching wire ends of the primary and secondary coils to vias of the PCB includes:

- inserting the primary and secondary coil wire ends into vias;
- soldering the wire ends of the primary and secondary coils to the vias; and
- cutting the wire ends of the primary and secondary coils to length.

13. (Original) The method of claim 12, wherein the method further includes grinding the wire ends of the primary and secondary coils flush to the surface.

14. (Original) The method of claim 12, wherein soldering the wire ends of the primary and secondary coils includes melting insulation from the wire ends.

15. (Original) The method of claim 11, wherein forming at least one secondary coil includes forming a plurality of secondary coils, at least two of the secondary coils having a different number of turns.

16. (Original) The method of claim 11, wherein forming at least one primary coil includes forming a plurality of primary coils.

17. (Original) The method of claim 16, wherein forming a plurality of primary coils includes electrically connecting the primary coils in parallel.

18. (Original) The method of claim 11, further comprising affixing the coils and the magnetic core to a first side of the PCB with epoxy.

19. (Original) The method of claim 18, wherein the method further includes covering the coils and the magnetic core with an electromagnetic shield.

20. (Original) A method comprising:

attaching wire ends of at least one primary coil of a transformer to at least first and second vias of a printed circuit board (PCB), the vias being in communication with bonding pads on the PCB;

attaching wire ends of at least one secondary coil of a transformer to at least third and fourth vias of the PCB; and

attaching the wire ends of the primary and secondary coils flush to a surface of the vias on the PCB.

21. (Original) The method of claim 20, wherein attaching wire ends of the transformer primary and secondary coils to vias of the PCB includes:

inserting the primary and secondary coil wire ends into vias; and

soldering the wire ends of the primary and secondary coils to the vias.

22. (Original) The method of claim 21, the method further including trimming the wire ends of the primary and secondary coils.

23-30. (Canceled)